

**REPORT OF THE 15TH MEETING OF INTERNATIONAL ORGANISATIONS
WORKING IN THE FIELD OF METHODS OF ANALYSIS AND SAMPLING (INTER-
AGENCY MEETING)**

Budapest, Hungary 15th November 2002

Present

AOAC INTERNATIONAL	Al Pohland (Secretary) Markus Lipp Roger Wood (Chairman)
AOCS	Richard Cantrill Kim Magin
AAFCO	Alan Hanks
CEN TC 275	Braxton Reynolds
CIPAC	Alan Hanks
EOQ	Pal Molnar
EURACHEM	Marie Walsh
ICC	Radomir Lasztity
ICUMSA	Roger Wood
IDF	Edward Hopkin
ISO	Martha Petro Turza Nadine Normand
NMKL	Hilde Skar Norli Harriet Wallin
OIV	Alain Blaise Jean-Claude Ruf Mary Kelly

Apologies

Apologies were received from Scott Coates (AOAC RI), H. Glattes (ICC), Arpad Ambrus (IAEA), Ales Fajgelj (IUPAC), Selma Doyran (Codex) and Jeronimas Maskeliunas (Codex), Marianna Toth (EOQ) and Pauline Jones (ISO).

The attendees were welcomed by the Mrs Martha Petro-Turza of the Hungarian Standards Institution, which was, as previously, kindly hosting the meeting.

1. Report of the previous meeting IAM-14, 2001

This was accepted without modification, except that in Section 10 it was clarified that the EURACHEM publication referred to gave a glossary of terms and their translation into various languages of interest to analytical chemists.

2. Matters arising from the previous meeting not otherwise on the agenda

There were no matters arising from previous meeting not otherwise on the agenda. However, it was noted that a number of the actions agreed at the previous meeting had not been completed by the participants at that meeting.

3. Review of IAM membership

The membership of the IAM was discussed. It was agreed that an invitation to participate in the activities of the IAM would be made to those organisations which had been listed in the “Directory of Organisations” which had, until recently, been prepared for CCMAS delegates and which are recognised “International Organisations” in the sense accepted by the current IAM membership.

These organisations, which includes the current IAM members, are given below

AACC	American Association of Cereal Chemists
AAFCO	American Association of American Feed Control Officials
AOAC*	AOAC INTERNATIONAL
AOAC RI*	AOAC Research Institute
AOCS*	American Oil Chemists’ Society
CEN*	European Committee for Standardization
CIPAC	Collaborative International Pesticides Analytical Council
CODEX*	Codex Alimentarius Commission of the FAO/UN
EAL	European Co-operation for Accreditation of Laboratories
EOQ	European Organisation on Quality
EURACHEM*	
FECS	Federation of European Chemical Societies
IAEA*	International Atomic Energy Agency
ICC*	International Association for Cereal Science and Technology
ICUMSA*	International Commission for Uniform Methods of Sugar Analysis
IDF*	International Dairy Federation
IFG	International Federation of Glucose Manufacturers
IFU	International Fruit Juice Union
ILAC	International Laboratory Accreditation Conference
IOCCC	International Organisation for Cocoa, Chocolate and Confectionery
IOOC	International Olive Oil Council
ISO*	International Organization for Standardization
IUPAC*	International Union of Pure and Applied Chemistry
NFPA*	National Food Processors’ Association
NMKL*	Nordic Committee on Food Analysis
OIV*	International Organisation for Wine and Vine
WHO*	World Health Organisation

*: current IAM member.

It was also agreed that the organisations would be asked to prepare a simple “News Report” which could be regularly up-dated as necessary and which could be circulated to the membership, ideally on a six-monthly basis.

In addition other organisations which were listed in the “Directory” would be informed of the activities of the IAM, as are participants to the Codex Committee on Methods of Analysis and Sampling through the report back to each Plenary Session of CCMAS.

These organisations are:

AGAL	Australian Government Analytical Laboratories
AMC	Analytical Methods Committee of the Royal Society of Chemistry (UK)
APA	Association of Public Analysts (UK)
BgVV	Federal Institute for Health Protection of Consumers and Veterinary Medicine (Germany)
CFIA	Canadian Food Inspection Agency
EU	European Commission (DG AGRI, DG SANCO and DG RESEARCH)
FDA	Food and Drug Administration (US)
FIS	Food Inspection Service (The Netherlands)
FSA	Food Standards Agency (UK)
USDA	US Department of Agriculture

4. Review of actions taken by Codex in response to the results of the 14th IAM meeting and other actions by Codex affecting IAM

4.1 Criteria Approach

It was noted that it was likely that the criteria approach would be further developed by CCMAS at its 24th Session. It was noted that as a result of the adoption of this approach it was probable that the users of analytical methods would require more information than was currently included in “Standard Methods”.

It was noted that the criteria required in the Codex discussion documents indicated that assessments for:

- accuracy
- applicability (matrix, concentration range and preference given to 'general' methods)
- detection limit
- determination limit
- precision; repeatability intra-laboratory (within laboratory), reproducibility inter-laboratory (within laboratory and between laboratories), but generated from collaborative trial data rather than measurement uncertainty considerations
- recovery
- selectivity
- sensitivity
- linearity

may be required to be assessed. At the present time few, if any “Standard Methods” included all such information. This would be discouraging to the users of methods and is an issue that will have to be addressed if/when the criteria approach is implemented in the food sector.

4.2 Single-Laboratory Validation

It was noted that this would be extensively discussed at the 24th Session of CCMAS. It was also noted that a number of the papers to be discussed were of a general nature and not a simple “how-to” guide for the bench analyst. It was also noted that a number of such papers had recently, or are about to be, published.

The NMKL representatives agreed to up-date the Chapter “A Critique on Available In-House Method Validation Documentation” in “Principles and Practices of Method Validation” edited by A Fajgelj and A Ambrus, UK RSC 2000 in the light, particularly, of the recent papers prepared by the EU, IAEA, IUPAC and the NMKL. In addition AOAC is preparing a “how-to” guide for use in its new Single Laboratory Validation Programme.

5. Electronic Compendium of Analytical Methods (e-CAM)

The AOAC project on developing an electronic compendium of analytical methods (e-CAM) was introduced and explained by Al Pohland. The rationale behind the project was explained and its progress to date.

It was noted that the inclusion of methods developed by organisations other than the AOAC was necessary to ensure a worldwide appeal of the system. To this end Memoranda of Agreements were being discussed between some International Organisations and the AOAC. It was noted that e-CAM would serve as a reference point to aid the analyst obtain summary information about the performance characteristics of available methods of analysis submitted to the system applicable to any particular determination. In particular it may be expected that *summary* information on the following attributes of a method would be included in e-CAM:

- Method Title, Scope (Abstract)
- References (publications and regulations)
- Principle and Summary of Method
- Definitions
- Matrix (Sample Information)
- Method performance
- Interferences
- Physical and Environmental Conditions
- Apparatus and Equipment
- Reagents and Supplies
- Standards,
- Sampling Procedures
- Test Sample Preparation
- Analytical Procedure
- QA/QC Procedures
- Calculation and Interpretation
- Appendices: Tables; Diagrams; Flowcharts; Supplemental Validation Data
- Bibliography

It was stressed that any copyright would remain with the organisation submitting the method to e-CAM, and that the analyst would have to obtain the text of the method from the submitting

organisation in the usual way. However, it was anticipated that simple Website links to the submitting organisation would be set up to aid the analyst retrieve the texts.

Participants considered that the system would be of benefit to both the organisations and, more importantly, to the users of the methods of analysis. It was reported that it was hoped that the “almost final” electronic version of the system would be ready for β - testing in June 2003.

It was noted that the system would not directly affect existing Codex Standards, but would aid users of Codex Standards when the criteria approach was adopted, as it would readily demonstrate whether methods were available which met the performance standards then being demanded by Codex.

It was also noted that the documentation regarding e-CAM would be re-drafted by the AOAC to be applicable to the members of the IAM, and would be sent to all organisations invited to be associated with the IAM (see Section 3 of this Report).

6. Discussion of IAM role and involvement in issues relating to Quality Assurance in Food analysis

It was noted that there were several recent publications/activities in the quality assurance for analytical laboratory area which are of interested to the IAM members, notably:

- The NMKL procedure No. 9 for evaluation of results, derived from the analysis of certified reference materials.
- ISO/CEN work in the control of media for microbiological determinations.
- ISO activities in the development of recommendations for estimating measurement uncertainty in microbiological determinations.

Members agreed to provide information on other recent initiatives, publication of standards, in the area.

It was also noted that with the publication of ISO 17025 there would be an enhanced emphasis on traceability to be made for the accredited analytical determination. Here CITAC/EURACHEM has produced 2 QA guides for chemistry in the 17025 context and for microbiology.

To aid the laboratory it was noted that a EURACHEM/CITAC Guide on “Traceability in Chemical Measurement” was currently undergoing development; it was initially discussed at an International Workshop held in Lucerne, June 2002.

It was also commented at a list of readily available *quality control* materials (as well as reference materials) was being collated in the UK developed to aid the analyst and participants were invited to contribute to that list.

7. IUPAC/ISO/AOAC INTERNATIONAL Harmonisation Programme

It was reported that the current IUPAC/ISO/AOAC Protocol for Proficiency Testing: The International Harmonised Protocol for the Proficiency Testing of (Chemical) Analytical Laboratories, already adopted by Codex by reference, was being revised by the IUPAC Working Party for Harmonization of Quality Assurance Schemes for Analytical Laboratories in the light of experience over the past 9 years since its publication. [The editors of the review are Michael Thompson, Steve Ellison and Roger Wood].

It was anticipated that the review would consider, in particular:

- the choice of target standard deviations
- the measurement uncertainty of the assigned value
- the problems with “satisfactory” not detected values
- the possibility of using proficiency testing results for method validation

The draft revision would be discussed at an International Workshop, to be held in Vienna in 2003, organised by IAEA. Members of the IAM would be notified of the Workshop.

8. Proficiency Testing

See Section 7 above, and

8.1 The Continuous Assessment of Standard Methods of Analysis - Effects of Proficiency Testing

At the present time IAM members prepare and publish standard methods of analysis. There is little follow-up or dialogue between the membership and the users of methods of analysis. Because participation in Proficiency Testing Schemes is now so widespread, it would seem that there is now an opportunity for the continuous assessment of adopted methods of analysis if sufficient participants state that they use a defined method exactly as written.

IAM members, while discussing this issue, were very interested but stated that it should be made clear by PT users under what circumstances methods were applied. Any variation in method would preclude the use of data to re-evaluate precision characteristics, most notably the RSD_R values.

The participants also noted that it may be possible to give information on whether specific methods of analysis may be validated through proficiency testing scheme results if sufficient participants “happened” to use the same method. IUPAC would consider this possibility when its Working Party on the Harmonisation of Quality Assurance Schemes revised the International Harmonised Proficiency Testing Protocol.

8.2 Blind Proficiency Testing

It was noted that the use of blind proficiency testing (i.e. when analysts were not aware that the sample they were analysing was a proficiency testing sample but would assume that it was a routine sample for analysis) was likely to increase, and that the results from such exercises should be handled with caution. In particular it was essential that the Analytical Laboratory Community was not unfairly discredited by such exercises.

9. Incorporation of Change of Methods/Method Corrections in the Codex Alimentarius Commission.

Concern was expressed by participants that methods of analysis were frequently incorrectly referenced in Codex Alimentarius publications, and in particular Volume XIII.

It was also noted that where methods were up-dated by an organisation, this was also not reflected in Codex publications.

The participants therefore requested the Codex Secretariat to ensure the IAM participants which had methods of analysis/sampling/other publications referenced in Volume XIII were consulted in time to make corrections before future revisions of the Volume were published.

10. Harmonisation of Analytical Terminology in Accordance with International Standards

A paper listing current analytical terminology was discussed. It was agreed that participants would be asked to update the current paper and for it to be then published on the Web. It was also noted that the VIM was currently being up-dated and note of this would have to be taken when revising the current paper.

11. Policies and Practices of IAM Members Regarding Proprietary Laboratory Techniques

The above was briefly discussed and participants agreed to send in their policies in this area, particularly with respect to the adoption of so-called “black-box” techniques.

12. Discussion of the Utility, Objectives, and Future Direction of the IAM; Including Revision of the Terms of Reference

Participants considered the meeting to be of value, and would continue to be if the actions agreed were undertaken by participants in the IAM.

The Terms of Reference of the IAM were briefly discussed. These have been revised by the Secretariat in the light of discussions and current draft is attached as Annex I.

13. Any Other Business

13.1 Acknowledgement of Other Organisations' Methods

It was noted that there have been recent instances of methods being adopted by an organisation where the method has been developed and usually collaboratively studied under the auspices of another and that this has not been acknowledged.

This practice was not appreciated as it was recognised:

- as being unhelpful to the user of the method not to know its true pedigree (its traceability), and
- discourteous to the developing organisation.

It was stressed that this was not a copyright issue as such.

13.2 Rounding of Results

It was noted that the procedure for the Reporting of Analytical Results prepared by Professor Peter Wilrich for the previous IAM was being up-dated and would shortly be available for comment.

14. Publication of IAM Report

It was agreed that the Report of the 15th IAM would be published on the AOAC Website (www.aoac.org) once it was finalised.

15. Provisional Date of the Next Meeting

The next Inter-Agency meeting will take place prior to the 25th Session of CCMAS, at Budapest, Hungary

ANNEX I: LIST OF ACTIONS AGREED AT THE 15TH INTER-AGENCY MEETING

The following actions arose from the 15th Inter-Agency Meeting:

1. Invitation to participate in the activities of IAM to be extended (Secretariat).
2. Members to prepare regular contributions to a News Report (all members). This to be provided on the 1st January and 1st July each year, commencing 1st July, 2003 (all members).
3. NMKL representatives to up-date the Chapter “A Critique on Available In-House Method Validation Documentation” in “Principles and Practices of Method Validation” edited by A Fajgelj and A Ambrose, UK RSC 2000 in the light of recent papers in the area (NMKL).
4. Documentation regarding the Electronic Compendium of Analytical Methods (e-CAM) to be re-drafted for IAM purposes (Secretariat).
5. Information to be provided on other recent initiatives, publication of standards, in the quality assurance area (all members).
6. Contributions to a list of readily available quality control materials to be made (all participants).
7. The Codex Secretariat is to be requested that all IAM participants, who have methods of analysis/sampling/other publications, referenced in Volume XIII are consulted in time to make changes regarding any amendments needed before publication of documents.
8. Participants would update the current the current definitions paper (all participants).
9. Participants to provide secretariat any information on their approach to the adoption of propriety laboratory techniques (all members).
10. Terms of Reference to be revised and circulated to members (the Secretariat).
11. IAM members recommended to insert the full “pedigree” of methods in their adopted Standards (all members).

Terms of Reference of the Inter-Agency Meeting

The Inter-Agency Meeting (IAM)

The meeting of the international organisations working in the field of analysis and sampling of food products and associated quality assurance measures (hereafter referred to as the “Inter-Agency Meeting”) comprises representatives of interested international (governmental and non-governmental organisations active in this field.

Terms of Reference

The aim of the Inter-Agency Meeting is to promote co-operation between international organisations and to support the needs of the Codex Alimentarius Commission. In this respect, the Inter-Agency Meeting:

1. Develops and/or recommends common rules for the validation of methods of analysis and sampling and associated quality assurance measures;
2. Assists the Codex Alimentarius Commission in its need for methods of analysis and sampling and associated quality assurance measures;
3. Promotes Co-ordination between the organisations concerned;
4. Addresses problems which require international collaboration; and
5. Promotes uniformity of terminology relative to its field of activity.

Sessions

The Inter-Agency Meeting is normally held in association with the sessions of the Codex Committee on Methods of Analysis and Sampling (CCMAS).

Secretariat

A participating organisation to the IAM assumes the Secretariat function for 3 sessions, and may be renewable for a further 3 sessions.

The Secretariat function is currently assumed by the AOAC INTERNATIONAL; this will cease, or be renewed, at the end of the 16th Session of the IAM.

Chairman

The Chairman of the Inter-Agency Meeting is appointed for the duration of one meeting. This appointment starts at the end of the Session of CCMAS to which the IAM session is attached, and will cease at the end of the subsequent Session of CCMAS.

It is expected, but not a requirement, that the current Chairman and Secretariat will be provided by the same IAM member organisation.

Amendments

Adopted circa 1977.

Amended March 1997 (IAM –12).

Amended November 2002 (IAM-15).